

Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	January 29, 2024 – February 1, 2024	
Media Program:	Air	
Regulatory Program(s)	Clean Air Act Section 112(r) and 40 Code of Federal Regulations (C.F.R.) Part 68 Chemical Accident Prevention Provisions – Risk Management Program (RMP)	
Company Name:	Shintech Louisiana, LLC	
Facility Name:	Addis Plant A	
Facility Physical Location:	9750 LA-1 South	
(city, state, zip code)	Addis, Louisiana 70710	
Mailing address:	P.O. Box 358	
(city, state, zip code)	Addis, Louisiana 70710	
County/Parish:	West Baton Rouge Parish	
Facility Phone Number	(225)-685-1199	
Facility Contact:	Timothy Bergeron, Environmental Manager	(225)-685-1199
	tbergeron@shin-tech.com	
RMP ID:	1000 0017 3509	
Identification/Permit Number:	Air Operating Permit ID: 2639-V9	
FRS:	110008393354	
NAICS:	325211 Plastics Material and Resin Manufacturing	
SIC:	N/A	
Personnel participating in inspection:		
Charese Simpson	EPA Region 6	Lead Inspector
Timothy Bergeron	Shintech Louisiana, LLC (Addis Plant A)	Environmental Manager
Chris Hall	Shintech Louisiana, LLC (Addis Plant A)	Environmental Manager
Chris Baggs	Shintech Louisiana, LLC (Addis Plant A)	Safety Superintendent
Justin Blanchard	Shintech Louisiana, LLC (Addis Plant A)	Production Superintendent
Chuck Acosta	Shintech Louisiana, LLC (Addis Plant A)	Maintenance
Tony Loupe	Shintech Louisiana, LLC (Addis Plant A)	Training/PSM Coordinator
Chris Allen	Shintech Louisiana, LLC (Addis Plant A)	Safety Assistant Superintendent
Josh Willie	Shintech Louisiana, LLC (Addis Plant A)	Maintenance Supervisor
Vickey Gautreaux	Shintech Louisiana, LLC (Addis Plant A)	Process Safety Specialist
Kevin Morain	Shintech Louisiana, LLC (Addis Plant A)	Training/PSM Consultant
Zachary Curry	Shintech Louisiana, LLC (Addis Plant A)	Process Safety Engineer
Mark Devall	Shintech Louisiana, LLC (Addis Plant A)	Process Safety Superintendent
Chet Peterson	Shintech Louisiana, LLC (Addis Plant A)	Maintenance Manager
EPA Lead Inspector Signature/Date	<i>Charese Simpson</i> Charese Simpson	3.20.2024 Date
Supervisor Signature/Date	Samuel Tate	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

I, United States Environmental Protection Agency (EPA) Region 6 Inspector Charese Simpson, arrived at the Shintech Louisiana, LLC (Addis Plant A) facility at 9:00 AM on Monday, January 29, 2024, for an announced inspection. I met with Timothy Bergeron (Environmental Manager) and other Addis Plant A employees for an opening meeting. I presented my credentials and informed Addis Plant A personnel that this was an EPA inspection to determine compliance with the federal Chemical Accident Prevention Program. The scope of the inspection was a partial compliance evaluation (PCE), which included an evaluation of the facility's compliance with the Clean Air Act (CAA) Section 112(r)(1) & (7), the General Duty Clause and the Chemical Accident Prevention Provisions in 40 C.F.R. Part 68. Addis Plant A's Risk Management Plan (RMP) is listed as a Program Level Three (3) facility. I inquired if an employee representative was available pursuant to Section 112(r)(6)(L) of the CAA to participate in this inspection and was informed that the Addis Plant A is a non-union facility.

FACILITY DESCRIPTION

Addis Plant A is located at 9750 LA-1 South, Addis, Louisiana 70710. Addis Plant A owns and operates a Polyvinyl Chloride (PVC) Plant located in West Baton Rouge Parish. The facility currently makes PVC resin and has the ability to load hopper trucks and rail cars, as well as packaging supersacks.

Addis Plant A's regulated process includes one (1) current Program Level Three RMP-Covered Process: Polyvinyl Chloride (PVC) Plant. Addis Plant A handles one regulated flammable chemical under the Risk Management Program: Vinyl chloride [Ethene, chloro-] (CAS Number: 75-01-4). In addition, Addis Plant A handles one regulated toxic chemical under the Risk Management Program: Chlorine (CAS Number: 7782-50-5).

Addis Plant A has approximately 60 full-time employees that work at the site, in addition to the independent contractors that work at the plant.

Section II – OBSERVATIONS

On Wednesday, January 31, 2024, I was accompanied by Justin Blanchard (Production Superintendent) to conduct a tour of the site. I observed the covered process, emergency equipment, and control room. Addis Plant A's operators are able to access standard operating procedures (SOPs) electronically. Prior to the tour, I was provided with piping and instrumentation diagrams (P&IDs) of the process unit that assisted in the tour.

Subpart A – General

40 C.F.R. § 68.10 Applicability – Addis Plant A is a Title V stationary source that has an air operating permit and more than threshold quantities of regulated substances (toxic and flammable) in its process streams; therefore, these regulations are applicable. Addis Plant A is subject to the Occupational Safety and Health Administration (OSHA) process safety management (PSM) standard, 29 C.F.R. § 1910.119, and has one Program Level 3 process under OSHA PSM.

40 C.F.R. § 68.12 General Requirements— I reviewed Addis Plant A’s RMP registration submitted on October 23, 2020. It listed the toxic and flammable chemicals for its Program 3 process.

40 C.F.R. § 68.15 Management – Addis Plant A developed a management system to oversee the implementation of risk management program elements, documented the positions for implementing the individual requirements of the risk management program, and defined the lines of authority using its RMP Management Organizational Chart, which lists responsibilities.

Subpart B – Hazard Assessment

40 C.F.R. § 68.20 Applicability – Addis Plant A has one Program Level 3 process subject to this subpart. Addis Plant A is required to prepare an off-site consequence analysis and complete the five-year accident history.

40 C.F.R. § 68.22 Off-Site Consequence Analysis Parameters – Addis Plant A used parameters required in this part to calculate flammable worst-case and alternative release scenarios. Addis Plant A used RMP*Comp™ and Circular Area Profiling System (CAPS) as the technique for modeling the release scenarios. For both the worst-case and alternative case scenarios involving flammables, the facility used the endpoints provided in Appendix A of 40 C.F.R. Part 68, appropriate wind speeds and stability classes, ambient temperatures and humidity values, values for height of the release, and surface roughness values for the release scenario analyses.

40 C.F.R. § 68.25 Worse-Case Release Scenario Analysis – During the inspection, I reviewed documentation from Addis Plant A regarding the worst-case release scenario analysis for their flammable process. This analysis used the RMP*Comp™ and Circular Area Profiling System (CAPS), which is a dispersion modeling suite that includes toxic dispersion, fire, and explosion models. Addis Plant A analyzed and reported in the RMP their worst-case release scenario, estimated to create the greatest distance to endpoint, and resulting from an accidental release of a regulated flammable substance from a covered process under worst-case conditions. The worst-case release quantity was determined by the greatest amount held in a single vessel, considering administrative controls that limit the maximum quantity released.

40 C.F.R. § 68.28 Alternative Release Scenario Analysis – Addis Plant A identified and documented the alternative release scenario to represent all flammable substances held in a covered process, using a scenario that is likely to occur. Addis Plant A utilizes the RMP*Comp™ and Circular Area Profiling System (CAPS). They maintain aerial photos showing the alternative release scenario endpoint distance radius and a circle centered on the approximate location of the unit that is considered in the alternative release scenario; therefore, meeting the requirements of the regulation.

40 C.F.R. § 68.30 Defining Off-Site Impacts - Population – Addis Plant A used the most current Census Bureau population data and the distances to endpoints, as specified in the regulation, to calculate the population numbers reported in their RMP. In addition, Addis Plant A utilizes the CAPS software to define the affected off-site population.

40 C.F.R. § 68.33 Defining Off-Site Impacts - Environment – Addis Plant A identified environmental receptors in the distance to the endpoint or in the vicinity of the facility, as appropriate, in the area maps used for the modeling.

40 C.F.R. § 68.36 Review and Update – Addis Plant A reviewed and updated the off-site consequence analyses at least once every five years, as required by this subpart.

40 C.F.R. § 68.39 Documentation – Addis Plant A maintained records of the off-site consequence analyses, in accordance with this subpart. These records included:

- documentation of vessels or pipelines;
- substances selected for worse case and alternative release scenarios;
- documentation of estimated quantity released, release rate, and duration of release;
- methodology used to determine distance to endpoint; and,
- data used to estimate population and environmental receptors.

40 C.F.R. § 68.42 Five-year accident history – I reviewed Addis Plant A's five-year accident history. I did not identify any accidental releases from the covered process that resulted in one or more of the following: on-site deaths, injuries, significant property damage on-site, known off-site deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage in its accident history.

Subpart D – Program 3 Prevention Program

40 C.F.R. § 68.65 Process Safety Information – Addis Plant A compiled written process safety information, which includes information pertaining to the hazards of the regulated substances used or produced by the process, information pertaining to the technology of the process, and information pertaining to the equipment in the process. Safety Data Sheets (SDSs) for the process chemicals were provided and detailed process safety information that contains the following data for the hazards of the substances used: toxicity information, permissible exposure limits, physical data, reactivity data, corrosivity data, thermal and chemical stability data, and the hazardous effects of inadvertent mixing of materials that could foreseeably occur. I reviewed documentation concerning the technology of the process, which included a block flow diagram, process chemistry, maximum intended inventory, safe upper and lower limits for such items as: temperatures, pressures, flows or compositions, and an evaluation of the consequences of deviation for each covered process. I reviewed documentation pertaining to the equipment of the process, including materials of construction, piping and instrumentation diagrams (P&IDs), electrical classification, relief system design and design basis, ventilation system design, design codes and standards employed, material and energy balances, and safety systems.

40 C.F.R. § 68.67 Process hazard analysis (PHA) – I reviewed Addis Plant A's PHA procedure. Addis Plant A performed PHAs that identified, evaluated, and controlled the hazards involved in the processes. The facility completes each PHA based on the five-year cycle from the previous PHA. Addis Plant A conducts PHAs using the Hazard and Operability Study (HAZOP) methodology.

Each PHA I reviewed addressed the hazards of the process and included: identification of any incident that had a likely potential for catastrophic consequences, engineering and administrative controls applicable to hazards and their interrelationships, consequences of failure of engineering and administrative controls, stationary source siting factors, human factors; and, an evaluation of a range of the possible safety and health effects of failed controls.

Addis Plant A established a system, PHAPro and utilized Excel spreadsheets, to track and promptly address the team's findings and recommendations. The facility has a written schedule of when actions are to be completed.

The PHAs were performed by a team with expertise in engineering and process operations. The team included appropriate personnel from Addis Plant A and a contractor with knowledge of the facility and in the specific PHA methodology used.

40 C.F.R. § 68.69 Operating Procedures – Addis Plant A developed and implemented written operating procedures that provide instructions or steps for conducting activities associated with each covered process, consistent with the safety information. The operating procedures I reviewed addressed: the steps for each operating phase (initial and normal startup, normal operations, temporary operations, emergency operation and shutdown, normal shutdown, and startup following a turnaround or after emergency shutdown); the consequences of deviation and mechanisms to correct and/or avoid deviation; safety and health considerations; the properties of, and hazards presented by, chemicals used in the process; the precautions necessary to prevent exposure; quality control for raw materials; and, the safety systems and their functions. Operating procedures are accessible to process operators and other employees electronically via DCC Database. During the inspection, I reviewed Addis Plant A's safe work procedures, including lock out/tag out procedures and confined space entry procedures. The company utilizes safe work permits, which are required prior to any contractor entering a confined space. Addis Plant A is required to annually certify that operating procedures are current and accurate. Addis Plant A provided operating procedure certifications from the years 2021-2023. The operating procedures are current and accurate.

40 C.F.R. § 68.71 Training – I reviewed Addis Plant A's training program procedure and employee training records. The facility's training program ensured that each employee presently operating the covered process and each employee newly assigned to a covered process are trained or tested to qualify as competent in an overview of the process and in the operating procedures that pertain to their duties. In addition, Addis Plant A's operators must go through a training program, which includes the following: on- the-job training, a testing process that is computer based, and a series of field demonstration tests. The DCC Database is Addis Plant A's online system to house training documents to ensure no training is overdue.

40 C.F.R. § 68.73 Mechanical Integrity – I reviewed the written procedures Addis Plant A established to maintain the ongoing integrity of its process equipment. I spoke with Addis Plant A's Maintenance Supervisor who explained the facility's mechanical integrity program and procedures. I reviewed the facility's inspection records for several vessels and rotating equipment that are RMP covered. Out of the several vessels reviewed, two vessels were overdue for their internal inspection. Addis Plant A failed to implement their mechanical integrity procedure for the two vessels: PHL-301 and PHL-302. **[AOC #1– 68.73(b)]**. Addis Plant A failed to perform an internal inspection on the two vessels. An internal inspection was due on January 1, 2022, but was never conducted. The two vessels are on a 10-year cycle for internal inspections. In addition, Addis Plant A has five overdue inspections for rotating equipment. **[AOC #2 - 68.73(d)(1)]**. I reviewed Addis Plant A's ultrasonic thickness (UT), internal and external visual inspection reports for several piping circuits. All piping circuits reviewed were up to date on their inspections.

Addis Plant A uses a third-party contractor who conducts the facility's mechanical integrity inspection and testing. Addis Plant A houses records of scheduled, completed, and future inspections, preventative maintenance tasks, work orders, and mechanical integrity training via GPMate and Centralized Maintenance Software (CMMS). During the inspection, I reviewed training records of personnel who are American Petroleum Institute (API) certified and maintenance employees.

40 C.F.R. § 68.75 Management of Change (MOC) – I reviewed Addis Plant A’s MOC procedure. The written MOC procedure assured the facility managed changes to process chemicals, technology, equipment, procedures, and changes to stationary sources that effect a covered process. The procedure assured that the following considerations were addressed prior to any change: technical basis for change, impact of change on safety and health, modifications to operating procedures, necessary time period for the change, and authorization requirements for a proposed change. At the time of the inspection, EPA reviewed several MOCs. Employees involved in operating a process and maintenance and contract employees whose job tasks will be affected by a change were trained prior to start up, according to the MOCs reviewed. One MOC, #2023002, indicated a change to an operating procedure. However, Addis Plant A failed to provide the updated procedure during the inspection [**AOC #3 – 68.75(e)**].

40 C.F.R. § 68.77 Pre-startup Safety Review (PSSR) – I reviewed Addis Plant A’s selected pre-startup safety reviews for the associated MOCs. The PSSRs documented that, when the facility installed a new stationary source, or significantly modified an existing source, a review was conducted prior to the introduction of a regulated substance into the process, the construction and equipment design were completed in accordance with design specifications, and the required safety, operating, and maintenance and emergency procedures are in place, including training.

40 C.F.R. § 68.79 Compliance Audits – Addis Plant A provided their most recent certified RMP Compliance Audits conducted in June 2019 and June 2022. Addis Plant A certified and completed a compliance audit every 3 years. Addis Plant A is required to promptly determine and document an appropriate response to each of the findings of the compliance audit; however, the facility failed to document that those deficiencies were corrected promptly. [**AOC #4 - 40 C.F.R. § 68.79(d)**] Addis Plant A has multiple findings from their 2013, 2016 and 2019 compliance audit that were open in their 2022 Compliance Audit. Some of the findings have a due date of 2018 but was extended to January 18, 2023.. During the inspection, it was noted that the facility meets quarterly to discuss the progress of open action items from the previous compliance audits to ensure that those action items are tracked to completion.

40 C.F.R. § 68.81 Incident Investigation – Addis Plant A provided a list of all incident investigations that occurred within the past five years. Of those reviewed, the incident investigation team consisted of at least one person knowledgeable in the process involved. Addis Plant A has an incident management standard work practice procedure for both near-miss and incident reporting. Addis Plant A investigated each incident that resulted in, or could reasonably have resulted in, a catastrophic release of a regulated substance.

40 C.F.R. § 68.83 Employee Participation – Addis Plant A developed a written plan of action regarding the implementation of the employee participation required by this section, which is integrated into the program elements. Addis Plant A’s written plan describes how they consult with employees on the performance and development of process hazard analyses, and on the development of the other elements of process safety management required under the rule. The action plan provides employees access to process hazard analyses and to all other information that must be developed under this rule.

40 C.F.R. § 68.85 Hot Work Permit – Addis Plant A provided their hot work and safe work procedure that detailed guidance for hot work/safe work activities at the site. Safe work and hot work are required for all activities involving cold work, vehicle entry, electrical work, excavations, welding, flame cutting,

grinding, etc. I reviewed a sample of reports that consisted of spark producing work (welding/cutting). Several hot work permits I reviewed documented that fire prevention and protection requirements were implemented prior to beginning hot work operations. The permits I reviewed indicated the dates authorized for hot work. Addis Plant A's hot work permits indicated that a fire watch is required after hot work.

40 C.F.R. § 68.87 Contractors – I reviewed Addis Plant A's contractor procedure. Addis Plant A utilizes the ISNetWorld contractor database to evaluate information regarding a contractor's safety performance and programs. The program requires each contractor to be evaluated based on the risk category of their work. Contractors will either have to (1) Obtain an ISNetWorld account and submit the requested documentation (2) Obtain approval from Shintech Safety department via the Shintech Safety internal pre-qualification process or (3) Exempt from a Shintech Safety review. This information will be used to evaluate the contractor's safety performance and programs. All contractors that perform work at the facility shall receive and maintain the following training prior to work: OSHA Training, Shintech Louisiana Site Specific Training, Unit Specific Training, and Contractor Specific Training. Contractors are also informed of known potential hazards, provisions of the Emergency Action Plan (EAP), and health and safety procedures through the work permit procedure. The Addis Plant A site implements safe work practices consistent with 40 C.F.R. § 68.69(d), to control the entrance and exit of the contract employees via the security gate and badging system.

Subpart E – Emergency Response

40 C.F.R. § 68.90 Applicability – Addis Plant A is designated as a “responding” stationary source in case of an accidental release of a regulated substance; therefore, the facility shall comply with the requirements of 40 C.F.R. § 68.95.

40 C.F.R. § 68.93 Emergency Response Coordination Activities – Addis Plant A coordinates with Plaquemine Fire Department and other local emergency planning and response organizations. At the time of the inspection, Addis Plant A provided several documents of coordination with local authorities that included the names of the individuals involved, their contact information, and the nature of the coordination for the recent coordination activities that took place.

40 C.F.R. § 68.95 Emergency response program – I reviewed Addis Plant A's emergency response plan. The plan included: procedures for informing the public and local emergency response agencies about accidental releases and procedures and measures for emergency response after an accidental release of a regulated substance. Addis Plant A's plan included proper documentation of first aid and emergency medical treatment necessary to treat accidental human exposures. The emergency response plan included procedures for the use of emergency response equipment, and for its inspection, testing, and maintenance in relevant emergency response procedures. I reviewed several emergency response equipment inspections such as, but not limited to, the fire water system, fire monitors, VCM monitors, and SCBAs. All inspections were up to date during the inspection.

40 C.F.R. § 68.96 Emergency Response Exercises – As part of coordination with local emergency response officials required by § 68.93, Addis Plant A consulted with officials to establish an appropriate frequency for field exercises.

Subpart G – Risk Management Plan

40 C.F.R. § 68.190 Updates – Addis Plant A’s RMP was re-submitted on October 23, 2020.

40 C.F.R. § 68.195 Required corrections – Addis Plant A’s next RMP registration re-submission is due by October 23, 2025, unless an update or correction is required by 40 C.F.R. § 68.190 or 40 C.F.R. § 68.195 prior to the five-year renewal deadline.

Section III – AREAS OF CONCERN

AOC 1 – 40 C.F.R § 68.73(b) Mechanical Integrity

“(b) Written procedures. The owner or operator shall establish and implement written procedures to maintain the on-going integrity of process equipment.”

Addis Plant A failed to implement their mechanical integrity procedure “Storage Tank Internal Inspection, SLA-MIP-AGST002.R00” for two vessels: PHL-301 and PHL-302. The two vessels are on a 10-year cycle for internal inspections.

AOC 2 – 40 C.F.R § 68.73(d)(1) Mechanical Integrity

“(d)(1) Inspection and testing. Inspections and tests shall be performed on process equipment.”

Addis Plant A failed to perform an internal inspection on PHL-301 and PHL-302. The next internal inspection was due on January 1, 2022, but was not conducted. In addition, Addis Plant A has five (5) overdue inspections for rotating equipment.

AOC 3 – 40 C.F.R § 68.75(e) Management of Change

“(e) If a change covered by this paragraph results in a change in the operating procedures or practices required by § 68.69, such procedures or practices shall be updated accordingly.”

During the inspection, several MOCs were reviewed. One MOC, #2023002, indicated a change to an operating procedure. However, Addis Plant A failed to provide the updated procedure.

AOC 4 – 40 C.F.R § 68.79(d) Compliance Audits

“(d) The owner or operator shall promptly determine and document an appropriate response to each of the findings of the compliance audit, and document that deficiencies have been corrected.”

Addis Plant A is required to promptly determine and document an appropriate response to each of the findings of the compliance audit; however, the facility failed to document that those deficiencies were corrected promptly. In addition, there are some repeat findings from the 2013, 2016, and 2019 Compliance Audit that are in the 2022 Compliance Audit. Some of the findings have a due date of 2018 but was extended to January 18, 2023. During the inspection, it was noted that Addis Plant A employees meet quarterly to discuss the progress of open action items from the previous compliance audits to make sure those action items are tracked to completion.

Closing Meeting – I conducted a closing conference at Addis Plant A on February 1, 2024. During the closing conference, I reviewed the four Areas of Concern listed above that were noted during the inspection.

Section IV – FOLLOW UP

No additional information was received by EPA after exiting the Facility on February 1, 2024.

Section V – LIST OF APPENDICES

There are no photos, videos, or other appendices to this report.